OIPE

RAW SEQUENCE LISTING   DATE: 05/01/2002
PATENT APPLICATION: US/10/032,827A   TIME: 12:01:18

Input Set : **A:\seqlistcorrected.txt**
Output Set: **N:\CRF3\05012002\J032827A.raw**

```
 3  <110> APPLICANT: Schwartz, John J.
 4        Jacobson, Joseph
 5        Dasgupta, Ruchira
 7  <120> TITLE OF INVENTION: Engineered Stimulus-Responsive Switches
 9  <130> FILE REFERENCE: ENZ-004
11  <140> CURRENT APPLICATION NUMBER: US 10/032,827A
12  <141> CURRENT FILING DATE: 2001-10-23
14  <150> PRIOR APPLICATION NUMBER: US 60/242,546
15  <151> PRIOR FILING DATE: 2000-10-23
17  <160> NUMBER OF SEQ ID NOS: 20
19  <170> SOFTWARE: PatentIn version 3.0
21  <210> SEQ ID NO: 1
22  <211> LENGTH: 21
23  <212> TYPE: PRT
```
C--> `24 <213> ORGANISM: Artificial`
```
26  <220> FEATURE:
27  <223> OTHER INFORMATION: Zinc finger consensus sequence
29  <220> FEATURE:
30  <221> NAME/KEY: misc_feature
31  <222> LOCATION: (2)..(3)
32  <223> OTHER INFORMATION: wherein Xaa at positions 2, 3 can be any amino acid
35  <220> FEATURE:
36  <221> NAME/KEY: misc_feature
37  <222> LOCATION: (5)..(7)
38  <223> OTHER INFORMATION: wherein Xaa at positions 5, 6, 7 can be any amino acid
41  <220> FEATURE:
42  <221> NAME/KEY: misc_feature
43  <222> LOCATION: (9)..(13)
44  <223> OTHER INFORMATION: wherein Xaa at positions 9, 10, 11, 12, 13 can be any amino
acid
47  <220> FEATURE:
48  <221> NAME/KEY: misc_feature
49  <222> LOCATION: (15)..(16)
50  <223> OTHER INFORMATION: wherein Xaa at positions 15, 16 can be any amino acid
53  <220> FEATURE:
54  <221> NAME/KEY: misc_feature
55  <222> LOCATION: (18)..(20)
56  <223> OTHER INFORMATION: wherein Xaa at positions 18, 19, 20 can be any amino acid
59  <400> SEQUENCE: 1
```
W--> `61 Cys Xaa Xaa Cys Xaa Xaa Xaa Phe Xaa Xaa Xaa Xaa Xaa Leu Xaa Xaa`
```
62  1               5                   10                  15
```
W--> `64 His Xaa Xaa Xaa His`
```
65              20
67  <210> SEQ ID NO: 2
```

```
       68 <211> LENGTH: 22
       69 <212> TYPE: PRT
C-->   70 <213> ORGANISM: Artificial
       72 <220> FEATURE:
       73 <223> OTHER INFORMATION: Zinc finger consensus sequence
       75 <220> FEATURE:
       76 <221> NAME/KEY: misc_feature
       77 <222> LOCATION: (2)..(4)
       78 <223> OTHER INFORMATION: wherein Xaa at positions 2, 3, 4 can be any amino acid
       81 <220> FEATURE:
       82 <221> NAME/KEY: misc_feature
       83 <222> LOCATION: (6)..(8)
       84 <223> OTHER INFORMATION: wherein Xaa at positions 6, 7, 8 can be any amino acid
       87 <220> FEATURE:
       88 <221> NAME/KEY: misc_feature
       89 <222> LOCATION: (10)..(14)
       90 <223> OTHER INFORMATION: wherein Xaa at positions 10, 11, 12, 13, 14 can be any amino
acid
       93 <220> FEATURE:
       94 <221> NAME/KEY: misc_feature
       95 <222> LOCATION: (16)..(17)
       96 <223> OTHER INFORMATION: wherein Xaa at positions 16, 17 can be any amino acid
       99 <220> FEATURE:
      100 <221> NAME/KEY: misc_feature
      101 <222> LOCATION: (19)..(21)
      102 <223> OTHER INFORMATION: wherein Xaa at positions 19, 20, 21 can be any amino acid
      105 <400> SEQUENCE: 2
W-->  107 Cys Xaa Xaa Xaa Cys Xaa Xaa Xaa Phe Xaa Xaa Xaa Xaa Xaa Leu Xaa
      108 1               5                   10                  15
W-->  110 Xaa His Xaa Xaa Xaa His
      111               20
      113 <210> SEQ ID NO: 3
      114 <211> LENGTH: 23
      115 <212> TYPE: PRT
C-->  116 <213> ORGANISM: Artificial
      118 <220> FEATURE:
      119 <223> OTHER INFORMATION: Zinc finger consensus sequence
      121 <220> FEATURE:
      122 <221> NAME/KEY: misc_feature
      123 <222> LOCATION: (2)..(5)
      124 <223> OTHER INFORMATION: wherein Xaa at positions 2, 3, 4, 5 can be any amino acid
      127 <220> FEATURE:
      128 <221> NAME/KEY: misc_feature
      129 <222> LOCATION: (7)..(9)
      130 <223> OTHER INFORMATION: wherein Xaa at positions 7, 8, 9 can be any amino acid
      133 <220> FEATURE:
      134 <221> NAME/KEY: misc_feature
      135 <222> LOCATION: (11)..(15)
      136 <223> OTHER INFORMATION: wherein Xaa at positions 11, 12, 13, 14, 15 can be any amino
acid
      139 <220> FEATURE:
```

```
      140 <221> NAME/KEY: misc_feature
      141 <222> LOCATION: (17)..(18)
      142 <223> OTHER INFORMATION: wherein Xaa at positions 17, 18 can be any amino acid
      145 <220> FEATURE:
      146 <221> NAME/KEY: misc_feature
      147 <222> LOCATION: (20)..(22)
      148 <223> OTHER INFORMATION: wherein Xaa at positions 20, 21, 22 can be any amino acid
      151 <400> SEQUENCE: 3
W--> 153 Cys Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Phe Xaa Xaa Xaa Xaa Xaa Leu
      154 1               5                   10                  15
W--> 156 Xaa Xaa His Xaa Xaa Xaa His
      157               20
      159 <210> SEQ ID NO: 4
      160 <211> LENGTH: 21
      161 <212> TYPE: PRT
C--> 162 <213> ORGANISM: Artificial
      164 <220> FEATURE:
      165 <223> OTHER INFORMATION: Zinc finger consensus sequence
      167 <220> FEATURE:
      168 <221> NAME/KEY: misc_feature
      169 <222> LOCATION: (2)..(3)
      170 <223> OTHER INFORMATION: wherein Xaa at positions 2, 3 can be any amino acid
      173 <220> FEATURE:
      174 <221> NAME/KEY: misc_feature
      175 <222> LOCATION: (4)..(16)
      176 <223> OTHER INFORMATION: wherein Xaa at positions 5, 6, 7, 8, 9, 10, 11, 12, 13, 14,
15, 1
      177        6, 17 can be any amino aci
      180 <220> FEATURE:
      181 <221> NAME/KEY: misc_feature
      182 <223> OTHER INFORMATION: wherein Xaa at positions 19, 20 can be any amino acid
      185 <400> SEQUENCE: 4
W--> 187 Cys Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
      188 1               5                   10                  15
W--> 190 Xaa Cys Xaa Xaa Cys
      191               20
      193 <210> SEQ ID NO: 5
      194 <211> LENGTH: 7
      195 <212> TYPE: PRT
C--> 196 <213> ORGANISM: Artificial
      198 <220> FEATURE:
      199 <223> OTHER INFORMATION: target sequence for protein kinase A
      201 <400> SEQUENCE: 5
      203 Leu Arg Arg Ala Ser Leu Gly
      204 1               5
      206 <210> SEQ ID NO: 6
      207 <211> LENGTH: 10
      208 <212> TYPE: PRT
C--> 209 <213> ORGANISM: Artificial
      211 <220> FEATURE:
```

```
212 <223> OTHER INFORMATION: substrate for casein kinase II
214 <400> SEQUENCE: 6
216 Arg Arg Arg Glu Glu Glu Thr Glu Glu Glu
217 1               5                   10
219 <210> SEQ ID NO: 7
220 <211> LENGTH: 12
221 <212> TYPE: PRT
```
C--> 222 **<213> ORGANISM: Artificial**
```
224 <220> FEATURE:
225 <223> OTHER INFORMATION: substrate sequence for v-Abl tyrosine kinase
227 <400> SEQUENCE: 7
229 Glu Ala Ile Tyr Ala Ala Pro Phe Ala Lys Lys Lys
230 1               5                   10
232 <210> SEQ ID NO: 8
233 <211> LENGTH: 27
234 <212> TYPE: DNA
```
C--> 235 **<213> ORGANISM: Artificial**
```
237 <220> FEATURE:
238 <223> OTHER INFORMATION: primer for leucine zipper motif
240 <400> SEQUENCE: 8
241 atcgcgcaca tgaaacaact tgaagac                                      27
244 <210> SEQ ID NO: 9
245 <211> LENGTH: 22
246 <212> TYPE: DNA
```
C--> 247 **<213> ORGANISM: Artificial**
```
249 <220> FEATURE:
250 <223> OTHER INFORMATION: primer for leucine zipper motif
252 <400> SEQUENCE: 9
253 tcagcgttcg ccaactaatt tc                                           22
256 <210> SEQ ID NO: 10
257 <211> LENGTH: 26
258 <212> TYPE: DNA
```
C--> 259 **<213> ORGANISM: Artificial**
```
261 <220> FEATURE:
262 <223> OTHER INFORMATION: primer for lambda repressor
264 <400> SEQUENCE: 10
265 atgagcacaa aaaagaaacc attaac                                       26
268 <210> SEQ ID NO: 11
269 <211> LENGTH: 18
270 <212> TYPE: DNA
```
C--> 271 **<213> ORGANISM: Artificial**
```
273 <220> FEATURE:
274 <223> OTHER INFORMATION: primer for lambda repressor
276 <400> SEQUENCE: 11
277 gcttacccag cgctccgc                                                18
280 <210> SEQ ID NO: 12
281 <211> LENGTH: 504
282 <212> TYPE: DNA
```
C--> 283 **<213> ORGANISM: Artificial**

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```
285 <220> FEATURE:
286 <223> OTHER INFORMATION: cI-bZIP repressor variant
288 <400> SEQUENCE: 12
289 atgagcacaa aaaagaaacc attaacacaa gagcagcttg aggacgcacg tcgccttaaa      60
291 gcaatttatg aaaaaaagaa aaatgaactt ggcttatccc aggaatctgt cgcagacaag     120
293 atggggatgg ggcagtcagg cgttggtgct ttatttaatg gcatcaatgc attaaatgct     180
295 tataacgccg cattgcttac aaaaattctc aaagttagcg ttgaagaatt tagcccttca     240
297 atcgccagag aaatctacga gatgtatgaa gcggttagta tgcagccgtc acttagaagt     300
299 gagtatgagt accctgtttt ttctcatgtt caggcaggga tgttctcacc taagcttaga     360
301 acctttacca aaggtgatgc ggagcgctgg gtaagcatcg cgcacatgaa acaacttgaa     420
303 gacaaggttg aagaattgct ttcgaaaaat tatcacttgg aaaatgaggt tgccagatta     480
305 aagaaattag ttggcgaacg ctga                                           504
308 <210> SEQ ID NO: 13
309 <211> LENGTH: 35
310 <212> TYPE: DNA
```
C--> **311 <213> ORGANISM: Artificial**
```
313 <220> FEATURE:
314 <223> OTHER INFORMATION: primer for coding sequence of a temperature sensitive form
of the
315         lambda repressor containing an AvaI sit
317 <400> SEQUENCE: 13
318 ttacaacgcc cgggtcagcc aaacgtctct tcagg                                35
321 <210> SEQ ID NO: 14
322 <211> LENGTH: 71
323 <212> TYPE: DNA
```
C--> **324 <213> ORGANISM: Artificial**
```
326 <220> FEATURE:
327 <223> OTHER INFORMATION: primer for the coding sequence of a temperature sensitive
form of
328         lambda represso
330 <400> SEQUENCE: 14
331 atgggcattt tctcgagtca gccgggccat accccgcatc cggcggccag cacaaaaaag      60
333 aaaccattaa c                                                          71
336 <210> SEQ ID NO: 15
337 <211> LENGTH: 784
338 <212> TYPE: DNA
```
C--> **339 <213> ORGANISM: Artificial**
```
341 <220> FEATURE:
342 <223> OTHER INFORMATION: TBD-cI chimeric repressor variant
344 <400> SEQUENCE: 15
345 atgggcattt tctcgagtca gccgggccat accccgcatc cattaacaca agagcagcac      60
347 aaaaaagaaa ccattaacac aagagcagct tgaggacgca cgtcgcctta aagcaattta     120
349 tgaaaaaaag aaaaatgaac ttggcttatc ccaggaatct gtcgcagaca agatggggat     180
351 ggggcagtca ggcgttggtg ctttatttaa tggcatcaat gcattaaatg cttataacgc     240
353 cgcattgctt acaaaaattc tcaaagttag cgttgaagaa tttagccctt caatcgccag     300
355 agaaatctac gagatgtatg aagcggttag tatgcagccg tcacttagaa gtgagtatga     360
357 gtaccctgtt catcaccatc accatcactt ttctcatgtt caggcaggga tgttctcacc     420
359 taagcttaga acctttacca aaggtgatgc ggagagatgg gtaagcacaa ccaaaaaagc     480
361 cagtgattct gcattctggc ttgaggttga aggtaattcc atgaccgcac caacaggctc     540
363 caagccaagc tttcctgacg gaatgttaat tctcgttgac cctgagcagg ctgttgagcc     600
365 aggtgatttc tgcatagcca gactgggggg tgatgagttt accttcaaga aactgatcag     660
```

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 05/01/2002
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Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:1; Xaa Pos. 2,3,5,6,7,9,10,11,12,13,15,16,18,19,20
Seq#:2; Xaa Pos. 2,3,4,6,7,8,10,11,12,13,14,16,17,19,20,21
Seq#:3; Xaa Pos. 2,3,4,5,7,8,9,11,12,13,14,15,17,18,20,21,22
Seq#:4; Xaa Pos. 2,3,5,6,7,8,9,10,11,12,13,14,15,16,17,19,20

Invalid <213> Response:
Use of "Artificial" only as "<213> Organism" response is incomplete,
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20

VERIFICATION SUMMARY   DATE: 05/01/2002
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Input Set : **A:\seqlistcorrected.txt**
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```
L:24 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:1
L:61 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:0
L:64 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1 after pos.:16
L:70 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:2
L:107 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0
L:110 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:16
L:116 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:3
L:153 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
L:156 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:16
L:162 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:4
L:187 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
L:190 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:16
L:196 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:5
L:209 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:6
L:222 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:7
L:235 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:8
L:247 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:9
L:259 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:10
L:271 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:11
L:283 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:12
L:311 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:13
L:324 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:14
L:339 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:15
L:377 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:16
L:392 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:17
L:422 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:18
L:450 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:19
L:463 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:20
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